



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/545,135	08/10/2005	Rajan A. Jaisinghani	P56907-INT	2162

7590 05/25/2006

Robert E Bushnell
Attorney at Law
Suite 300
1522 K Street NW
Washington, DC 20005-1202

EXAMINER

CHIESA, RICHARD L

ART UNIT	PAPER NUMBER
----------	--------------

1724

DATE MAILED: 05/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/545,135	Applicant(s) JAISINGHANI, RAJAN A.	
	Examiner Richard L. Chiesa	Art Unit 1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>Aug. 10, 2005</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings filed on August 10, 2005 are acceptable to the examiner.

Claim Objections

2. Claim 4 is objected to because it currently depends upon itself. Appropriate correction is required.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 1724

4. Claims 1-10 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-24, 36-87, and 94-143 of applicant's copending application Serial No. 10/618,457. Although the conflicting claims are not identical, they are not patentably distinct from each other because they appear to differ in rather minor details such as using different electrical potentials or perforated or non-perforated grids. These appear to be matters of choice that one would have been readily obvious to one having ordinary skill in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102/103

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1724

7. Claims 11-15, 17, and 20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 3,999,964 to Carr. Carr (note Figures 1-5, and col. 3, line 19 to col. 4, line 41) discloses an electrically enhanced filter apparatus with a porous filter medium positioned between perforated grids 26 and 28 forming pockets between arms of the filter assembly as claimed (35 USC 102b). It would appear that Carr may not explicitly state that the perforated grids are electrically conducting. However, Carr (note col. 4, lines 11-14) does disclose that the electrically conductive bus bar connects the charged perforated grid to a high magnitude DC voltage which indicates that the perforated grids of Carr are electrically conducting in virtually the same manner disclosed and shown by applicant. Consequently, it is inherent or at least would have been readily obvious to one of ordinary skill in the art (35 USC 103a) that Carr's perforated grids are electrically conductive.

8. Claims 11-17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carr in view of U.S. Patent No. 6,497,754 to Joannou. Carr, as described above in paragraph 7, discloses an electrically enhanced filter apparatus substantially as claimed. However, Carr may not explicitly state that the grids are electrically conductive or that the filter medium is pleated. In any case, Joannou (note Figures 1-6) teaches the well-known use of conductive grids 5, 10, and a pleated filter medium 15 in an electrically enhanced filter apparatus for the purpose of ensuring maximum electric charging and particle collection area (note Abstract; col. 2, lines 20-64, and col. 4, lines 27-65). Therefore, it would have been obvious to one of ordinary skill in the art to employ conductive grids and a pleated filter medium in the Carr electrically enhanced filter apparatus in order to improve electric charging and particle capture as taught by Joannou.

9. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 11 in either one of paragraphs 7 or 8 above, and further in view of U.S. Patent No. 5,403,383 to Jaisinghani. The prior art, as described above in either one of paragraphs 7 or 8, discloses an electrically enhanced filter apparatus substantially as claimed with the apparent exceptions of an electrical insulator and carbon fibers. Jaisinghani (note Figures 3A-F, ref. num. 340, and col. 23, lines 10-22) teaches the uses of both an electrical insulator and carbon fibers in an electrically enhanced filter device for the purpose of reducing sparking and increasing filtering efficiency (note col. 3, lines 1-16). It would have been obvious to one having ordinary skill in the art to employ an electrical insulator and carbon fibers in either one of the prior art filter devices in order to improve filtering efficiency while also reducing sparking as taught by Jaisinghani.

Allowable Subject Matter

10. Upon the filing of a proper terminal disclaimer and correction of the dependency of claim 4, claims 1-10 would be allowable.

11. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Art Unit: 1724

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These references have been cited as art of interest to show other electrically enhanced filter systems.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard L. Chiesa whose telephone number is (571) 272-1154.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane S. Smith, can be reached at (571) 272-1166.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 1700 receptionist whose telephone number is (571) 272-1700.

Facsimile correspondence must be transmitted through (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Richard L. Chiesa
May 24, 2006

Richard L. Chiesa

**RICHARD L. CHIESA
PRIMARY EXAMINER
ART UNIT 1724**

May 24, 2006